



U.S. ENVIRONMENTAL PROTECTION AGENCY

Contract No. 68-01-7367

237057

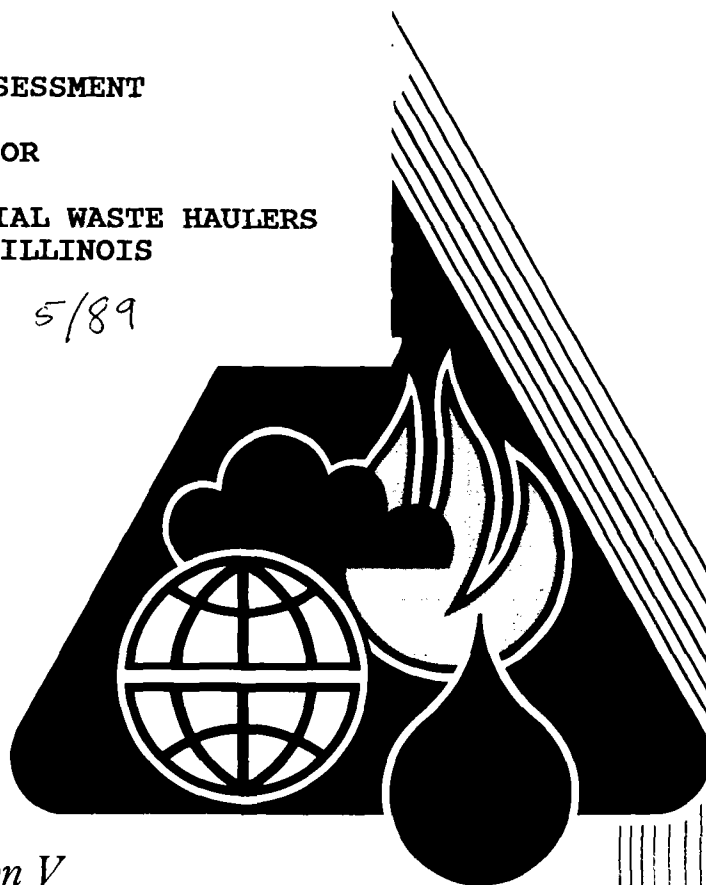
TECHNICAL
ASSISTANCE
TEAM

SITE ASSESSMENT

FOR

CHICAGO INDUSTRIAL WASTE HAULERS
ALSIP, ILLINOIS

5/89



Region V

ROY F. WESTON, INC.

Spill Prevention & Emergency Response Division
In Association with ICF Technology Inc., C.C. Johnson & Malhotra, P.C.,
Resource Applications, Inc., Geo/Resource Consultants, Inc., and
Environmental Toxicology International, Inc.



WESTON
MANAGERS DESIGNERS/CONSULTANTS

SITE ASSESSMENT
FOR
CHICAGO INDUSTRIAL WASTE HAULERS
ALSIP, ILLINOIS

5/89

Prepared for:
U.S. Environmental Protection Agency
Region V
230 South Dearborn Street
Chicago, Illinois

CONTRACT NO. 58-01-7367

TAT-05-G2-01019

TDD NO. 5-8903-12

Prepared by:
WESTON-SPER
Technical Assistance Team
Region V

May 1989

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1.0 SITE DESCRIPTION

Chicago Industrial Waste Haulers, Inc. (CIWH) is located at 4206 West Shirley Lane in Alsip, Illinois (Figure 1). The approximately six acre site is surrounded by a 7-foot chain-link fence. The surface topography is level. The site consists of one building along the north fence and over 24 scattered aboveground tanks (Figure 2). The tanks which vary in size from 265 to 20,000 gallons and lack secondary containment structures. Three of the tanks are mounted on trailers, while the others are positioned on the ground. Five underground tanks which vary in size from 6,000 to 12,000 gallons reportedly exist on the site.

The site is bordered to the north by a vacant lot and to the south by the Baltimore and Ohio Chicago Terminal Railroad spur. The area is predominantly industrial, surrounding the site to the east, south and west. A playground is located north of the vacant lot, approximately 200 feet from the site. A residential area is located adjacent to the playground. Stony Creek, the nearest waterway, flows to the southeast and borders the vacant lot. The creek bed, which drains into the Calumet Sag Channel, is located approximately 120 feet from the chain-link fence on the northern border of the site. The water table is estimated to be within 10 feet of the ground surface. The Village of Alsip obtains its water from the city of Chicago. No private wells are known to be in the immediate area.

2.0 SITE BACKGROUND

CIWH began operations in 1956 under the name of Chicago Tank Cleaners, Inc. and was operated by Anthony Prunsky. In November 1985, the corporation was involuntarily dissolved by the Illinois Secretary of State and the business changed its name to CIWH. CIWH cleaned and repaired tanks, brokered waste oil from gas stations, factories, and oil spills, and transported hazardous wastes. The waste oil was usually sold to an oil reclaimer or used for dust control on roads. The company discontinued use of the site after its permit to transport hazardous wastes was not renewed in 1986. Tanks filled with oil and wastes were left abandoned on the site. Radiological wastes were reportedly dumped onto the site. Kevin Prunsky, son of Mr. A. Prunsky, is presently the owner of the facility.

On September 30, 1984, two children were seriously injured when tank fumes ignited at the CIWH facility. The Village of Alsip notified the Illinois Environmental Protection Agency (IEPA), which performed a site investigation of the site on October 1, 1984. Samples were collected from several tanks on-site. The tank samples displayed Resource Conservation and Recovery Act (RCRA) ignitability characteristics. Further inspections on October 3, 1985, and February 13, 1987, by the IEPA revealed that no actions had been taken by CIWH to alleviate the RCRA violations.

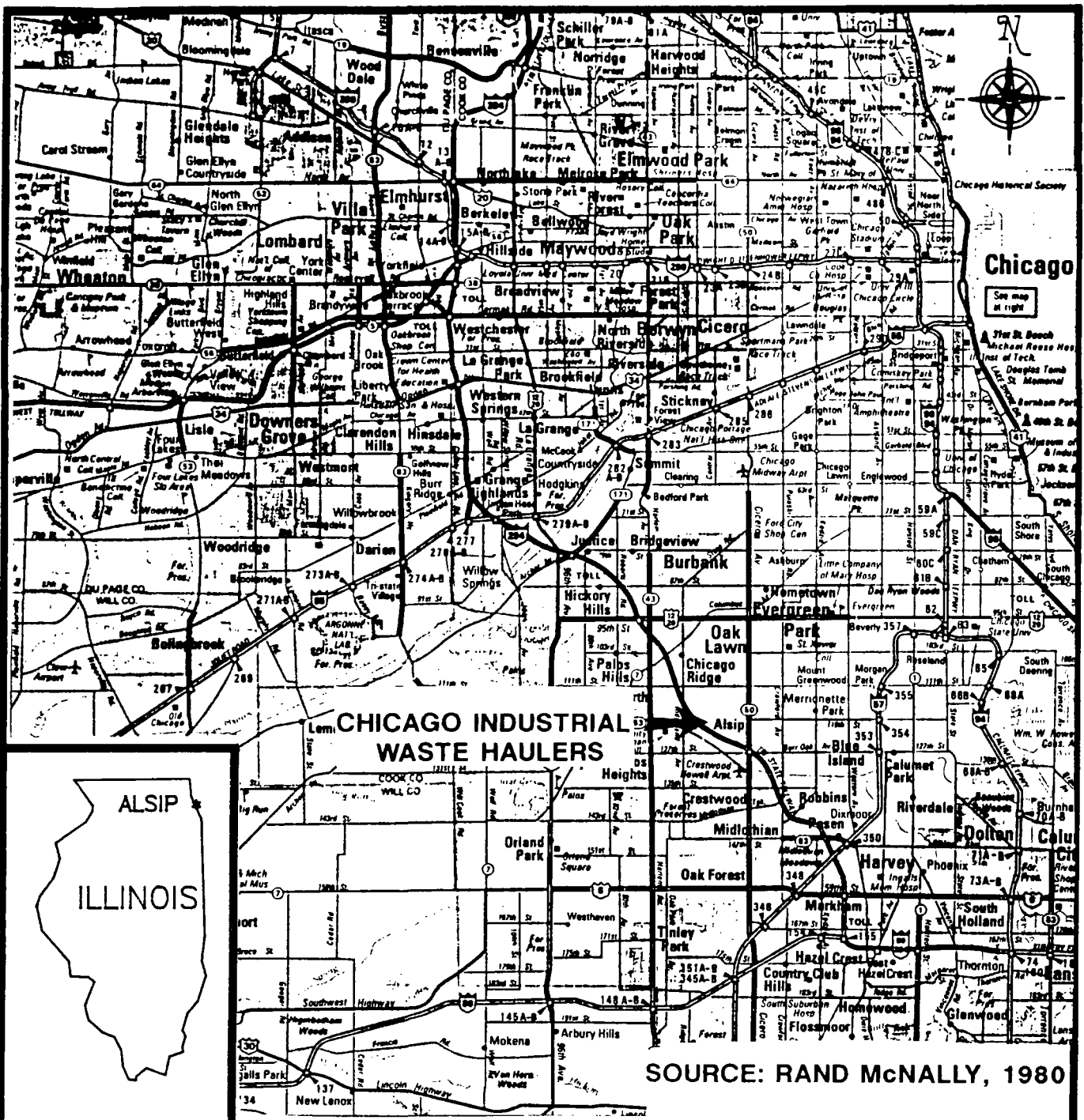


FIGURE 1
 SITE LOCATION MAP
 CHICAGO INDUSTRIAL
 WASTE HAULERS
 ALSIP, ILLINOIS
 SCALE 2.5 mm=4 MILES

WESTON
 MANAGERS DESIGNERS/CONSULTANTS

DRAWN BY	DATE	PCS #
R. YOUNG	3-31-89	2171
APPROVED BY	DATE	TDD #
C. CARON	3-31-89	5-8903-12

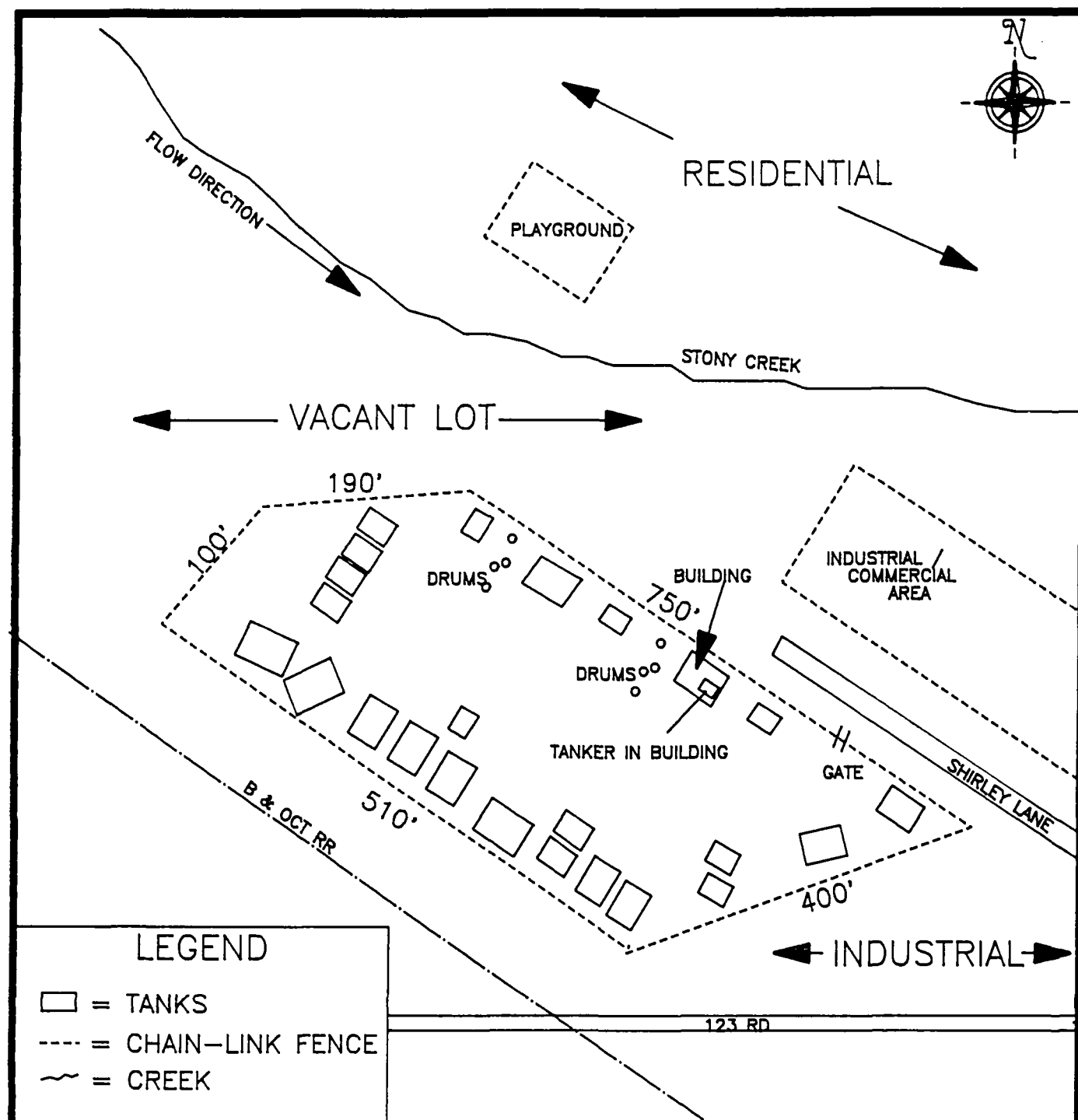


FIGURE 2
SITE MAP

(TANK LOCATIONS DISPLAYED REFLECT
THOSE FOUND ON 3-10-89)

CHICAGO INDUSTRIAL WASTE HAULERS
ALSIP, ILLINOIS

APPROXIMATE TO SCALE



DRAWN BY NR	DATE 4-25-89	PCS # 2171
APPROVED BY RM	DATE 4-25-89	TDD # 5-8903-12

On March 10, 1989, the Technical Assistance Team (TAT) conducted a spill prevention control and countermeasure (SPCC) inspection at the CIWH site. Air monitoring was conducted with an organic vapor analyzer (OVA) and readings of 3.5 units and 65 units over background were recorded near two tanks on the site.

On March 16, 1989, the U.S. Environmental Protection Agency (U.S. EPA) tasked the TAT to conduct a site investigation at the CIWH facility after On-Scene Coordinator (OSC) Richard Rupert observed workers at the site removing waste.

3.0 SITE INSPECTION

On March 17, 1989, TAT members Paul Szewczykowski, John Miller, Michael Spakowicz, and OSC Rupert met Raymond Prunsky, vice president of Pollution Control Industries of America (PCIA), at the CIWH site to perform a site investigation.

The TAT and OSC were allowed access to the site by Mr. R. Prunsky. Air monitoring was conducted with an OVA, a photoionization detector (HNU), a combustible gas indicator (CGI), and a radiation meter. No readings above background were obtained in the ambient air.

The TAT observed a crew cutting tanks, removing material, and containerizing waste in drums. Several tanks present during the SPCC inspection on March 10, 1989, were observed dismantled and removed from the site; particularly, the tank which registered 3.5 units on the OVA. The tank, which registered an OVA reading of 65 units was currently being opened and the contents shoveled out by Mr. R. Prunsky's crew. The crew was observed to be not wearing respiratory protection or protective clothing. A tanker, observed in the building, was labeled with polychlorinated biphenyl (PCB) warning labels. Readings of 20 to 30 units were recorded on an OVA near the open tanker while sampling.

At the request of OSC Rupert, the TAT collected nine samples from various tanks and tankers (Figure 3). Mr. R. Prunsky, who indicated he had no knowledge of the contents of these vessels, requested a duplicate sample from each sampling location.

The samples were analyzed by EMS Laboratories under TAT Analytical Services TDD #5-8903-L4. Three sludge samples were analyzed for F-listed waste solvents, PCBs, RCRA characteristics and Extraction Procedure (EP) toxicity metals. Six liquid samples were analyzed for the same series of tests, except hazardous substance list (HSL) metals were run instead of EP toxicity metals.

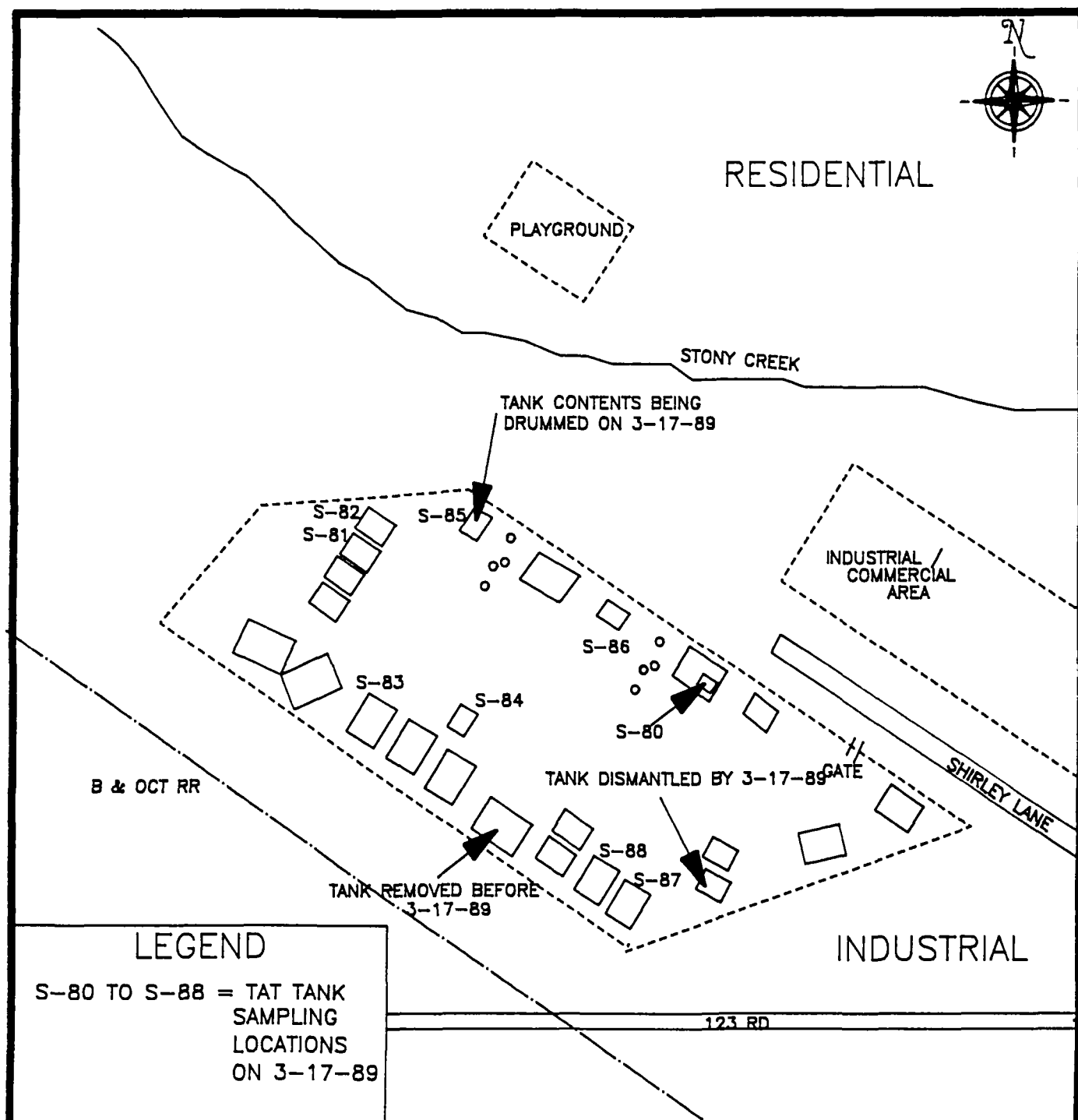


FIGURE 3

ON-SITE TANK SAMPLING LOCATION MAP

(TANK LOCATIONS DISPLAYED REFLECT THOSE FOUND ON 3-10-89 EXCEPT AS NOTED)

CHICAGO INDUSTRIAL WASTE HAULERS

ALSIP, ILLINOIS

NOT TO SCALE



DRAWN BY
NR

DATE
4-25-89

PCS #
2171

APPROVED BY
RM

DATE
4-25-89

TDD #
5-8903-12

On April 13, 1989, OSC Rupert tasked the TAT to return to the site to collect 20 soil, sediment and water samples from the vacant lot and Stony Creek which lie adjacent to the north of the site (Figure 4). The samples were analyzed for PCBs by Canton Analytical Laboratory, Inc. under TAT Analytical Services TDD#5-8904-L4.

4.0 ANALYTICAL RESULTS

The analytical results from tank samples collected at the CIWH site on March 17, 1989 are summarized in Table 1 and indicate that the contents of the sampled tanks display RCRA hazardous characteristics. Samples S87, S88, and S85 have flash points below 140 degrees fahrenheit (F) and are considered ignitable under RCRA. All of the samples, except S83, S84, and S85, exceed the 50 parts per million (ppm) level for PCBs promulgated by TSCA requiring specific management/disposal practices. Sample S83, although it is not ignitable and does not contain PCBs, contains F-listed solvents. Sample S84 did not display hazardous characteristics. EP toxicity and HSL metals scans revealed the presence of heavy metals in the tank samples, but with the exception of 110 ppm cadmium in sample S82, concentrations were low or non-detectable or within typical soil concentrations.

Samples collected on April 14, 1989, consisted of four surface water (S-23 to S-26) and three sediment samples (S-38 to S-40) from Stony Creek, one distilled water blank (S-22), eleven surface soil samples from the vacant lot (S-27 to S-37) and one background surface soil sample (S-41). The results summarized in Table 2 indicated the presence of PCB Aroclor-1254 at five soil sampling locations at concentrations ranging from 2.3 to 50 ppm.

5.0 THREATS TO HUMAN HEALTH AND THE ENVIRONMENT

Paragraph (b) (2) of Part 300.65 of the National Contingency Plan (NCP) outlines conditions that may be considered to warrant a removal action of which four exist at the CIWH site, and include:

- o Potential exposure to hazardous substances by nearby populations, animals, or food chains;
- o Actual or potential contamination of drinking water supplies or sensitive ecosystems;
- o Hazardous substances or pollutants or contaminants in drums and tanks, that may pose a threat of release; and,
- o Threat of fire or explosion.

These threats will be elaborated on within the following subsections.

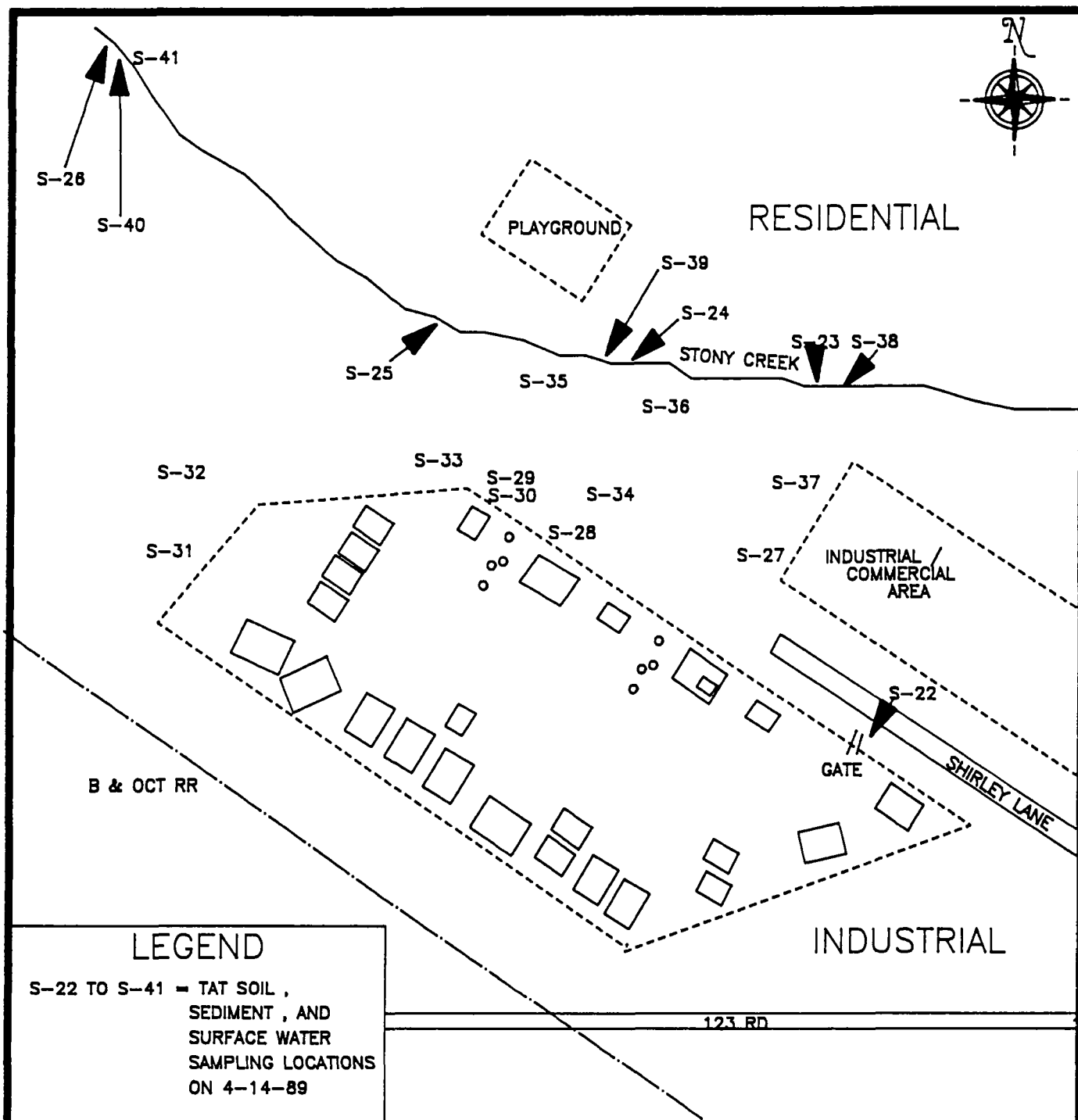


FIGURE 4

OFF-SITE SOIL, SEDIMENT, AND
SURFACE WATER SAMPLING MAP

CHICAGO INDUSTRIAL WASTE HAULERS
ALSIP , ILLINOIS

NOT TO SCALE



DRAWN BY
NR

DATE
4-25-89

PCS #
2171

APPROVED BY
RM

DATE
4-25-89

TDD #
5-8903-12

TABLE 1

ANALYTICAL RESULTS OF TAT TANK SAMPLING¹
VOLATILE ORGANICS, PCB, AND RCRA PARAMETERS
CHICAGO INDUSTRIAL WASTE HAULERS, INC.
ALSIP, ILLINOIS
MARCH 17, 1989

PARAMETER	SAMPLING LOCATIONS								
	S80 (Liquid)	S81 (Liquid)	S82 (Liquid)	S83 (Sludge)	S84 (Sludge)	S85 (Sludge)	S86 (Liquid)	S87 (Liquid)	S88 (Liquid)
<u>ORGANICS (ppm)</u>									
** BENZENE	(2)	(2)	(4)	650	ND	(10)	(93)	(110)	120
** ETHYL BENZENE	13	9	960	110	ND	1,200	8,800	ND	8,900
** METHYL ETHYL KETONE	ND	ND	1,300	ND	ND	ND	1,600	6,300	5,300
** TETRACHLOROETHENE	9	ND	45	ND	ND	ND	870	880	370
** TOLUENE	68	(3)	1,700	280	ND	110	20,000	21,000	(23)
** 1,1,1 TRICHLOROETHANE	8	ND	160	ND	ND	ND	(140)	370	380
** TRICHLOROETHENE	71	ND	(2)	ND	ND	ND	260	400	ND
** XYLENES (TOTAL)	66	32	4,200	710	.006	42,000	35,000	27,000	32,000
** METHYLENE CHLORIDE	ND	ND	35	(20)	ND	(10)	ND	2,600	ND
STYRENE	ND	(4)	ND	1,100	ND	ND	ND	ND	ND
** ACETONE	ND	ND	490	100	ND	ND	ND	ND	ND
CHLOROFORM	ND	ND	(3)	ND	ND	ND	ND	ND	ND
1,1-DICHLOROETHENE	ND	ND	(3)	ND	ND	ND	ND	ND	ND
4-METHYL-2-PENTANONE	ND	ND	64	ND	ND	ND	ND	ND	ND
VINYL ACETATE	ND	ND	ND	130	ND	ND	ND	ND	ND
1,2,4-TRICHLOROBENZENE	ND	ND	ND	ND	ND	150	ND	ND	ND
M-MENTHANE	ND	ND	ND	70	ND	ND	ND	ND	ND
1-METHYL-BUTYL-BENZENE	ND	ND	ND	120	ND	ND	ND	ND	ND
PROPYL BENZENE	ND	ND	17	ND	ND	ND	ND	ND	ND
1-ETHYL-2 METHYL-BENZENE	ND	ND	ND	ND	24	ND	ND	ND	ND
3-METHYL-HEXANE	ND	ND	ND	ND	ND	ND	350	600	250
1,2-DIMETHYL-CIS-CYCLOHEXANE	ND	ND	ND	ND	ND	ND	100	ND	ND
1,3-DIMETHYL-CIS-CYCLOHEXANE	ND	ND	ND	ND	ND	ND	250	ND	ND
1,1,3-TRIMETHYL-CYCLOHEXANE	ND	ND	ND	ND	ND	ND	400	650	ND
1-ETHYL-2-METHYL-CIS-CYCLOHEXANE	ND	ND	ND	ND	ND	ND	700	ND	ND
7,8-DIDEHYDRO-3 METHOXY-17-METHYL-1-METHYLENE-MORPHINAN	ND	ND	ND	ND	ND	ND	(150)	ND	ND
2-ONE-3-NONON	ND	ND	ND	ND	ND	ND	(200)	ND	ND
ETHYL ESTER ACETIC ACID	ND	ND	ND	ND	ND	ND	ND	850	ND
1-ETHYL-4-METHYL-BENZENE	ND	ND	ND	ND	ND	ND	ND	1,000	ND
3,3,5-TRIMETHYL-1-HEXENE	ND	ND	ND	ND	ND	ND	ND	700	ND
3,5,5-TRIMETHYL-2-CYCLOHEXEN-1-ONE	ND	ND	ND	ND	ND	ND	ND	450	ND
2-OKO-PROPANOIC ACID	ND	ND	ND	ND	ND	ND	ND	ND	650
4-METHYLENE-1-(1-METHYL ETHYL) CYCLOHEXENE	ND	ND	ND	ND	ND	ND	ND	550	ND

TABLE 1 (continued)

ANALYTICAL RESULTS OF TAT TANK SAMPLING¹
 VOCS, PCB, AND RCRA PARAMETERS
 CHICAGO INDUSTRIAL WASTE HAULERS, INC.
 ALSIP, ILLINOIS
 MARCH 17, 1989

PARAMETER	SAMPLING LOCATIONS								
	S80 (Liquid)	S81 (Liquid)	S82 (Liquid)	S83 (Sludge)	S84 (Sludge)	S85 (Sludge)	S86 (Liquid)	S87 (Liquid)	S88 (Liquid)
3-ETHYL-4, 4-DIMETHYL-2-PENTENE	ND	ND	ND	ND	ND	ND	ND	950	ND
1,1,3,5-TETRAMETHYL CYCLOHEXANE	ND	ND	ND	ND	ND	ND	ND	ND	500
1-METHYL-1-H-PYRAZOLE	3	ND	ND	ND	ND	ND	ND	ND	ND
2-METHYL-OCTAHYDRO-PENTALENE	11	ND	ND	ND	ND	ND	ND	ND	ND
1-ETHYL-2-METHYL-CIS-CYCLOHEXANE	17	ND	ND	ND	ND	ND	ND	ND	ND
2,6,-DIMETHYL-3-OCTENE	17	ND	ND	ND	ND	ND	ND	ND	ND
N,N-1,2-ETHANEDIYLIDENE BIS- 2-PROPANAMINE	ND	12	ND	ND	ND	ND	ND	ND	ND
<u>PCBs (ppm)</u>									
AROCLOR 1016	100	600	580	ND	ND	20	71	50	51
AROCLOR 1260	1500	1100	1100	ND	ND	ND	690	500	660
TOTAL	1600	1700	1680	ND	ND	20	761	550	711
<u>CYANIDE (ppm)</u>	ND	4.4	1.1	0.96	1.2	ND	ND	ND	1.3
<u>FLASHPOINT (°F)</u>	>180	>180	>180	155	>180	70	160	70	70
<u>pH</u>	6.6	6.4	9.4	8.3	7.4	6.4	4.7	4.5	5.5

REFER TO FIGURE 3 FOR SAMPLE LOCATIONS
 ND - NOT DETECTED AT METHOD DETECTION LIMITS
¹ SAMPLES ANALYZED BY EMS LABORATORIES
 ** F-LISTED SOLVENTS
 () - ESTIMATED VALUE

TABLE 2

ANALYTICAL RESULTS OF TAT SAMPLING¹
 CHICAGO INDUSTRIAL WASTE HAULERS
 APRIL 14, 1989
 (results in ppm)

<u>SAMPLING LOCATION</u>	<u>SUBSTRATE</u>	<u>PARAMETER PCB-1254</u>
S-22	Water Blank	ND
S-23	Creek Water	ND
S-24	Creek Water	ND
S-25	Creek Water	ND
S-26	Creek Water	ND
S-27	Soil	2.3
S-28	Soil	44.0
S-29*	Soil	2.9
S-30*	Soil	3.1
S-31	Soil	2.4
S-32	Soil	50.0
S-33	Soil	ND
S-34	Soil	ND
S-35	Soil	ND
S-36	Soil	ND
S-37	Soil	ND
S-38	Creek Sediment	ND
S-39	Creek Sediment	ND
S-40	Creek Sediment	ND
S-41	Soil-Background	ND

¹ Samples analyzed by Canton Analytical Laboratory, Inc.

ND = Not detected at method detection limits.

* Duplicate

5.1.1 Potential Exposure to Hazardous Substances

Site investigations and analytical results have documented the presence of tanks containing hazardous substances at the CIWH site. The tanks range in volume from approximately 265 to over 20,000 gallons, many of which are filled or nearly filled to capacity with oil and solvents contaminated with PCBs. Residences, including a children's playground, are located less than 200 feet north of the site. The poor condition of many of the tanks, the open lids and vent pipes, and the lack of spill containment structures creates a potential hazard to nearby residences and industrial workers via atmospheric contamination. The site is entirely enclosed by a chain-link fence; however, the deteriorated condition of the fence in some areas could allow access to the site.

Sampling of the vacant lot adjacent to the site has indicated the presence of PCB contamination in surface soils. The lot was observed to contain drums and metal debris strewn throughout. Access to the lot is not restricted and is less than 100 feet from the playground and residential areas. Direct contact exposure to PCB-contaminated soil is likely.

5.1.2 Actual or Potential Contamination of Drinking Water Supplies or Sensitive Ecosystems

Stony Creek, a natural waterway, is located less than 150 feet north of the site. Although no hydrogeologic data has been obtained, the elevation of Stony Creek suggests the presence of the water table within ten feet of the surface. Discoloration of the soil near many of the tanks on-site suggests the possibility that contaminants may have penetrated into the underlying aquifer. If contamination of the aquifer has occurred, the nearest downgradient surface water, Stony Creek, may be at risk. Stony Creek is a tributary to the Calumet Sag Channel. Water from the Sag Channel eventually drains to larger river systems upon which several communities rely for drinking water supplies. These water supplies could be threatened. Also, the aquatic ecosystems of these rivers could be damaged.

5.1.3 Threat of Release

Over twenty-four tanks were observed on site. Many of these tanks had open lids and vent pipes which could allow rainwater to enter and overflow hazardous materials to enter onto the ground. The tanks have no secondary containment structures which could contain the contents in the event of a release. The discoloration of the soil near several tanks indicates past releases.

5.1.4 Threat of Fire or Explosion

Chemicals found in these tanks such as benzene, ethyl benzene, ethyl ketone, xylenes, and toluene are highly flammable liquids.

Analytical results have indicated that tanks have flash points of less than 140°F. The 1984 incident when two children were injured on the site when fumes from tanks ignited, is evidence of the explosion threat the site presents. There is potentially a substantial threat of fire or explosion at CIWH that would present a danger to residents in the area.

5.2 Specific Chemical Threats

The TAT identified high concentrations of VOCs and PCBs in the tanks at CIWH. Organic solvents have been known to cause dizziness, suffocation and skin irritation. Solvents can be poisonous if inhaled or absorbed through the skin.

PCBs exhibit a high degree of environmental persistence and a very strong tendency to bioaccumulate. Such characteristics create a potential for chronic adverse health effects. Chronic effects found in laboratory animal studies include liver damage, various adverse dermal effects, various reproductive dysfunctions, immunosuppression, and carcinogenicity. The only clearly established adverse effects on humans from PCB exposure are certain dermal disorders such as chloracne. However, other toxic effects implicated in various studies (most regarding occupational exposure) include systemic symptoms such as nausea, headache, digestive disturbances, liver damage and neural effects. While no positive correlation between human exposure and cancer has been established, the U.S. EPA has classified PCBs as potential human carcinogens (Sax, 1984).

One tank sample had a high cadmium concentration. Cadmium salts are toxic and are listed as carcinogens by the U.S. EPA. Routes of exposure include chemical absorption, ingestion, and skin contact. Exposure to dust or mist can cause coughing, wheezing, and tracheobronchial irritation.

6.0 ALTERNATIVE ACTIONS

Based on the TAT's site investigations and analytical results, the following alternative actions are presented to mitigate the threat posed by the CIWH site:

- o Restrict access to the facility and to the vacant lot adjacent to the facility. Deteriorated areas of fencing around the facility could be repaired and a 6-foot chain link and barbed wire fence could be erected around the vacant lot with locking access points. Warning signs could be posted.
- o A radiological survey of the entire facility and vacant lot could be conducted.

- o Sampling of all tanks at the facility for disposal parameters could be conducted and the contents disposed of consistent with RCRA compliance. The tanks could be dismantled, rendering them incapable of holding materials, or removed from the site.
- o A geophysical survey could be conducted throughout the facility and vacant lot in order to locate buried drums and tanks.
- o All buried drums and tanks could be excavated and the contents analyzed for disposal parameters. Contents could be disposed of in compliance with RCRA regulations.
- o A soil gas survey could be conducted throughout the facility and in the vacant lot in order to aid efforts in determining the extent of contamination.
- o An extent of contamination study could be conducted on the site and vacant lot soils, and in Stony Creek sediments.
- o Based on soil and sediment sampling results, soils and sediments contaminated with PCBs, metals, solvents or other contaminants, above cleanup standards, could be excavated and disposed of or treated in compliance with RCRA regulations.
- o The impact on ground water contamination could be evaluated at the site via sampling. If contamination is identified in ground water samples, then a comprehensive ground water sampling plan and hydrogeological survey could be conducted. Based on the survey results, ground water remediation actions may be initiated.

REFERENCES

Sax, N. 1984. Dangerous Properties of Industrial Materials. Van
Nostrand Reinhold Company, New York.

ATTACHMENT A

PHOTOGRAPHS



Photograph #1
 Chicago Industrial Waste Haulers. Alsip, Illinois
 View of tanks on the south side of the site. Looking southwest.
 Date: 3-10-89 Time: 1145
 Photographer: Paul Szewczykowsk *P.S.*
 Camera/Film: 35mm/ 200 ASA



Photograph #2
 Chicago Industrial Waste Haulers. Alsip, Illinois
 View of tanks on the south side of the site. Looking northwest.
 Date: 3-10-89 Time: 1200
 Photographer: Paul Szewczykowsk *P.S.*
 Camera/Film: 35mm/ 200 ASA



Photograph #3
 Chicago Industrial Waste Haulers. Alsip, Illinois
 View of truck tanker and oil tanks near west border of
 site; looking northwest.
 Date: 3-10-89 Time: 1210
 Photographer: Paul Szewczykowski P.S.
 Camera/Film: 35mm/ 200 ASA



Photograph #4
 Chicago Industrial Waste Haulers. Alsip, Illinois
 View of tanks near south border; looking southwest.
 Date: 3-10-89 Time: 1215
 Photographer: Paul Szewczykowski P.S.
 Camera/Film: 35mm/ 200 ASA



Photograph #5
 Chicago Industrial Waste Haulers. Alsip, Illinois
 View of tanks on site; looking east.
 Date: 3-10-89 Time: 1230
 Photographer: Paul Szewczykowsk *P.S.*
 Camera/Film: 35mm/ 200 ASA



Photograph #6
 Chicago Industrial Waste Haulers. Alsip, Illinois
 View of tank along the north border of the site;
 looking north.
 Date: 3-10-89 Time: 1300
 Photographer: Paul Szewczykowsk *P.S.*
 Camera/Film: 35mm/ 200 ASA



Photograph #7
 Chicago Industrial Waste Haulers. Alsip, Illinois
 View of tank and drums along the northern border of the site;
 looking north.
 Date: 3-10-89 Time: 1315
 Photographer: Paul Szewczykowski P.S.
 Camera/Film: 35mm/ 200 ASA



Photograph #8
 Chicago Industrial Waste Haulers. Alsip, Illinois
 View of tank and drums along the north border of the site.
 OVA reading of 65 units recorded near blue tank in foreground.
 Date: 3-10-89 Time: 1305
 Photographer: Paul Szewczykowski P.S.
 Camera/Film: 35mm/ 200 ASA



Photograph #9
 Chicago Industrial Waste Haulers. Alsip, Illinois
 View of truck tanker inside on site building. Sampling location
 S-80. Note PCB lable on tanker.
 Date: 3-17-89 Time: 1200
 Photographer: Paul Szewczykowsk *P.S.*
 Camera/Film: 35mm/ 200 ASA



Photograph #10
 Chicago Industrial Waste Haulers. Alsip, Illinois
 TAT collecting samples at tank sampling location S-81.
 Looking west.
 Date: 3-17-89 Time: 1230
 Photographer by: Paul Szewczykowsk *P.S.*
 Camera/Film: 35mm/ 200 ASA



Photograph #11
 Chicago Industrial Waste Haulers. Alsip, Illinois
 Tank labled "1#" was TAT sampling location S-82 on 3-17-89.
 Date: 3-10-89 Time: 1230
 Photographer: Paul Szewczykowsk *PS.*
 Camera/Film 35/ 200 ASP



Photograph #12
 Chicago Industial Waste Haulers. Alsip, Illinois
 View of TAT sampling location S-83. Looking south.
 Date: 3-17-89 Time: 1302
 Photographer: Paul Szewczykowsk *PS.*
 Camera/Film: 35mm/ 200 ASA



Photograph #13
 Chicago Industrial Waste Haulers. Alsip, Illinois
 View of TAT sampling location S-84.
 Note small horizontal tank where samples were collected.
 Looking south.
 Date: 3-17-89 Time: 1340
 Photographer: Paul Szewczykowski P.S.
 Camera/Film: 35mm/ 200 ASA



Photograph #14
 Chicago Industrial Waste Haulers. Alsip, Illinois
 View of TAT sampling at sample location S-85.
 Looking north. Note in foreground PRP personnel.
 Date: 3-17-89 Time: 1342
 Photographer: Paul Szewczykowski P.S.
 Camera/Film: 35mm/ 200 ASA



Photograph #15
 Chicago Industrial Waste Haulers. Alsip, Illinois
 View of sampling location S-86; looking north.
 Date: 3-17-89 Time: 1354
 Photographer: Paul Szewczykowski P.S.
 Camera/Film: 35mm/ 200 ASA



Photograph #16
 Chicago Industrial Waste Haulers. Alsip, Illinois
 Looking at Stony Creek where it flows adjacent and
 north of the site. Looking northwest and upstream.
 Date: 4-14-89 Time: 0835
 Photographer: Paul Szewczykowski P.S.
 Camera/Film: 35mm/ 200 ASA



Photograph #17
Chicago Industrial Waste Haulers. Alsip, Illinois
View of playground located north of the site and Stony Creek.
Date: 4-14-89 Time: 0844
Photographer: Paul Szewczykowski P.S.
Camera/Film: 35mm/ 200 ASA



Photograph #18
Chicago Industrial Waste Haulers. Alsip, Illinois
View of TAT collecting surface water samples at sampling
location S-25.
Note playground in background.
Date: 4-14-89 Time: 0906
Photographer: Paul Szewczykowski P.S.
Camera/Film: 35mm/ 200 ASA



Photograph #19
 Chicago Industrial Waste Haulers. Alsip, Illinois
 View of TAT collecting soil samples at sample location S-27.
 Date: 4-14-89 Time: 0948
 Photographer: Paul Szewczykowski *PS.*
 Camera/Film: 35mm/ 200 ASA



Photograph #20
 Chicago Industrial Waste Haulers. Alsip, Illinois
 View of TAT collecting samples at soil sampling location
 S-28. Note deteriorated drum and drum lids scattered around the area.
 Date: 4-14-89 Time: 1003
 Photographed by: Paul Szewczykowski *PS.*
 Camera/Film: 35mm/ 200 ASA



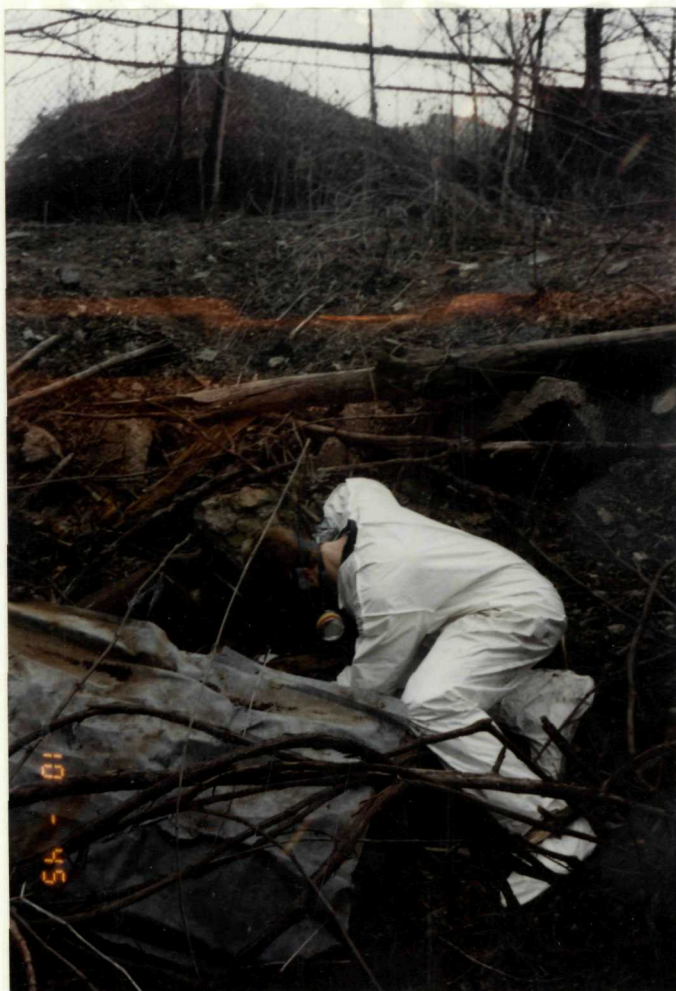
Photograph #21
 Chicago Industrial Waste Haulers. Alsip, Illinois
 View of drum lid with PCB lable at sampling location S-28.
 Date: 4-14-89 Time: 1004
 Photographer: Paul Szewczykowski P.S.
 Camera/Film: 35mm/ 200 ASA



Photograph #22
 Chicago Industrial Waste Haulers. Alsip, Illinois
 View of TAT sampling at soil locations S-29, and S-30.
 Looking southwest.
 Date 4-14-89 Time: 1022
 Photographer: Paul Szewczykowski P.S.
 Camera/Film: 35mm/ 200 ASA



Photograph #23
Chicago Industrial Waste Haulers. Alsip, Illinois
View of soil sampling location S-31. Looking southeast.
Date: 4-14-89 Time: 1030
Photographer: Paul Szewczykowsk *PS*
Camera/Film: 35mm/ 200 ASA



Photograph #24
Chicago Industrial Waste Haulers. Alsip, Illinois
View of TAT collecting a soil sample from sample location
S-32. Looking southeast.
Date: 4-14-89 Time: 1045
Photographer: Paul Szewczykowski P.S.
Camera/Film: 35mm/ 200 ASA